06/23/11: CIA-RDP86-00513R001032000024-6 SMOLOV, Vladimir Borisovich; SMIRROV, Nikolay Alekseyevich; FCMICHEV, Vladimir Stepanovich; CHERNYAVIKIY Yevgeniy Aleksandrovich; MANAYEV, V.M., red [Reliability of a coding converter] Nadezhnost; kodiru-iushchego preobrazovatelia. Leningrad, 1964. 15 p. (MIRA 17:7)

CIA-RDP86-00513R001032000024-6

MAMAYEV, V.M.

Pupils assist scientists in collecting insects. Biol.v shkole no.3:72-74 My-Je '59. (MIRA 12:9)

1. Institut morfologii zhivotnykh Akademii nauk SSSR. Iz opyta zoologicheskogo kruzhka Khunzakhskoy sredney shkoly-internata (Dagestanskaya ASSR).

(Insects-Collection and preservation)

<u> APPROVED FOR RELEASE; 06/23/11; CIA-RDP86-00513R001032000024-6</u>

GEL'FAND, F.M., MAMAYEV, V.I.

Datermining the speed of boring with air hemmers. Naush, trudy KNIUI no.14:230-234 '64.

Compaction of cartridges in multiple blasting and determining the safe distance between charges. Ibid. 2239-2

"Channel effect" phenomenon as one of the cause: for the dying out of the detonation of borehole charges. Ibid. \$245-25% (MIRA 1884)

APPROVED FOR RELEASE; 06/23/11: CIA-RDP86-00513R001032000024-6

KIYATKHANOV, B.A.; MAMAYEV, V.I.; PYLAYEVA, V.M.; PANKOV, V.N.

Outbreak of staphylococcal food toxicoinfection. Zdrav.Turk. 6 no.4:36-37 Jl-Ag '62. (MIRA 15:8)

1. Iz sanitarno-epidemiologicheskogo upravleniya Ministerstva zdravookhraneniya Turkmenskoy SSR (nachal'nik B.A.Kiyatkhanov) i Respublikanskoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach V.I.Mamayev).

(STAPHYLOCOCCAL DISEASE) (FOOD POISONING)

IVANOV, S.S., dotsent; MAMAYEV, V.B.

Treatment of clavicular fractures. Ortop., travm.i protez.
no.7:62-63 *61. (MIRA 14:8)

1. Iz travmatologicheskogo otdeleniya (zav. ~ V.B. Mamayev)
Orlovskoy oblastnoy bol'nitsy (glavnyy vrach - M.P. Khrisanopulo).

(CALVICLE.—FRACTURE)

BAKANOV, V.N., dotsent, kand. sel'skokhoz. nauk; KUZYURIN, A.N., zasluzhennyy agronom RSFSR; MAMAYEV, V.A., aspirent

Use of corn silage in intensified dairying. Izv. TSKHA no.5:
178-196 '64. (MIRA 18:5)

1. Kafedra kormleniya sel'skokhozyaystvennykh zhivotnykh Moskovskoy ordena Lenina sel'skokhozyaystvennyo akademii imeni Timiryazeva.
2. Direktor uchebno-opytnogo khozyaystva imeni Kalinina, Michurinskogo rayona, Tambovskoy oblasti, Moskovskoy ordena Lenina sel'skokhozyaystvennoy akademii imeni Timiryazeva (for Kuzyurin).

MAMAYEV, V.A., inzh. (Stavropol') Increasing the reliability of joint operation of a shorting plug and an isolator. Energetik 13 no.11:23-25 N '65.

(MIRA 18:11) MAMAYEV, V.A. Certain hydrodynamic problems in the simultaneous transportation of gas and liquid. Neft. khoz. 42 no.1:50-57 Ja'64. (MIRA 17:5)

KHODANOVICH, I.Ye.; MAMAYEV, V.A. Effect of liquid in gas flow on the hydraulic resistance of a pipeline. Gaz. prom. 8 no.6:36-38 '63. (MIRA 17:8) <u> APPROVED FOR RELEASE; 06/23/11: CIA-RDP86-00513R001032000024-6</u> GVOZDEV, B.P.; MAMAYEV, V.A. Method of calculating the height of the settling section of an oil dust collector. Trudy VIIIGAZ no.13:135-146 161. (MIRA 14:12) (Dust collectors) (Gas, Natural---Transportation)

KHODANOVICH, I.Ye.; GVOZDEV, B.P.; MAMAYEV, V.A. Quantitative correlation between film liquids and liquids with suspended drops in gas and condensate flow in a pipeline. Trudy VNIIGAZ no.13:130-134 '61.
(Gas, Natural--Pipelines) (MIRA 14:12)

<u> APPROVED FOR RELEASE; 06/23/11: _CIA-RDP86-00513R001032000024-6</u> KHODANOVICH, I.Ye.; MAMAYEV, V.A. Effect of the profile of a pipeline route on its capacity in concurrent flow of liquid and gas. Trudy VNIIGAZ no.13:104-109 (MIRA 14:12) 161. (Gas, Natural-Pipelines)

MAMAYEV, V.A. Similitude method for studying the flow of gas-liquid mixtures in a pipeline. Trudy VNIIGAZ no.13:82-92 161. (MIRA 14:12) (Gas., Natural--Pipelines) KHODANOVICH, I.Ye.; MAMAYEV, V.A.; ODISHARIYA, G.E.; NEFELOVA, N.V. Method of hydraulic calculation of pipelines for transporting a gas-liquid mixture. Trudy VNIIGAZ no.13:73-81 161. (MIRA 14:12) (Gas, Natural--Pipelines) KHODANOVICH, I.Ye.; MAMAYEV, V.A. (MIRA 14:12) KHODANOVICH, I.Ye.; NEFELOVA, N.V.; ODISHARIYA, G.E.; MAMAYEV, V.A.; GANCHEVA, G.P.; KIM, T.Ye. Study of regularities of pressure change and gas movement along a gas pipeline in unsteady flow. Trudy VNIIGAZ no.13:3-26 '61. (MIRA 14:12) (Gas, Natural--Pipelines)

MAMAYEV, V.A.; KHODANOVICH, I.Ye. Flow and energy equations of two-phase systems in the presence of phase transformation. Trudy VNIIGAZ no.8:78-83 '60. (MIRA 15:5) (Pipelines-Hydrodynamics) MAMAYEV, V.A.; KHODANOVICH, I.Ye.

Relationship between the contamination in gas suspensions and the capacity of gas pipelines. Trudy VNIIGAZ no.8:43-49 '60.

(Gas, Natural—Pipelines)

RHODANOVICH, I.Ye.; MAMAYEV, V.A.; NEFELOVA, N.V.; GANCHEVA, G.P. Pressure change in a pipeline during the unsteady gas flow.
Trudy VNIIGAZ no.8:14-26 '60. (MIRA
(Gas, Natural--Pipelines) (MIRA 15:5)

EASE: 06/23/11: CIA-RDP86-00513R001032000024-6 KHODANOVICH, I.Ye.; MAMAYEV, V.A.; ODISHARIYA, G.E. Formula for calculating the capacity of gas pipelines. Trudy VNIIGAZ no.8:3-13 '60. (MIRA 1 (MIRA 15:5) (Gas, Natural-Pipelines)

<u> APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001032000024-6</u> KHODA MOVICH, I.Ye.; MAMAYEV, V.A. More exact method for calculating gas-pipeline capacities. Trudy VNIIGAZ no.5:228-235 59. (MIRA 12:9) (Gas, Natural--Pipelines) <u> APPROVED FOR RELEASE: 06/23/11: _CIA-RDP86-00513R001032000024-6</u> KHODA WOVICH. I.Ye.; MAMAYEV, V.A. Calculating gas pipelines for unsteady flow. Trudy VNIIGAZ no.5:214-227 '59. (HIRA 12:9) (Gas, Natural--Pipelines)

MAMAGEUT S. C. COVERAGE: The articles discuss the development of gas fields, matural gas recovery, gas truesportation, and subsurface gas conservation. Jest field operating conditions are sandyred from the conservation for view. The surformer notes that due to the specific geological conditions provided the Sorder Union the spylication of gas extraction methods of the type used in the Sorder Union the spylication of gas extraction methods of the type used in the Sorder Union to gas fields with marror oil containing fringes, problems of the Gas tailor of gas will performence, gas filtration of problems of the theory of gas tailor of the properties of articles are deroted to the study of gas tailor of gas such as the spylines. Conclusions also deal with correction of the shorters are deroted to the study of the education of the formers of gas purpoints. Conclusions made by the concepts and confined as an entitional. Retreated to the arthers are secondary seth articles. So personalities are Research (simplimatering generate mestorenthenly, transport gass (Development and Explotestion of Gas Fields, Transportation of Gas) Moscow, Gostoptskhisdas, 1999, 355 p. (Series: Its: Trudy, 77p. 5/13/) Errars ally inserted. 1,500 copies Finish Ŕ ã 8 X 8 8 Dachturyan, 8.A. Study of the Acoustic Supercarging of a Platon Compressor, Carried Out With the Aid of a Varieble Volume Resonator Earlies, E.S., Ye.P. Otherisenke, and A.A. Tumanora. Study of the Process of Oil Spiny Gold for the Anticorrective Prefaction of the Inner Surface of Gas Pipelines FURFORS: This collection of articles is intended for actentists, engineers, and technicians associated with the gas industry. Mas.; Ye. N. Minally and V.N. Raaben; Exsc. Ed.: M.P. Martynove; Yech. Ed.: A.S. Polosins. Shariar, B.P., and K.S. Zarembo. Experience Cained in Mastering the Froduction of Oil Spray, and Its Unilization in a Huncipal Gas Exercibenting Serviors Sponsoring Agency: Clavnoys upreviently gasorcy procymismoski yri Sowka Ministry 8888. Portnov. 1.6. Steadiness of Stationary Operating Conditions of a Supersonic Jas Ejector Gordenskiy, 7.1. on the Theory of Unstabilized Gas Streem Floring Under Uniform Pressure Inorough sizes Streaminfpipiline Biodenorical, Life., and Lit. Tappell. On the Automodel Determination of Gas Flow in Figuria. Brokeforten live, and V.P. Briedover. Effect of Connecting Mings on the Maguephput Japacky of a Jas Pipeline Reducerten I.i.e., and V.A. Momera. Accurate Determination of the Gas Prairies Throughput Copulity Drodanowich, 1.52, and 7.44, Kanryy. Some Calculations on Gas Pipalines With an Unstabilized Gas flow Bokeshan, Tu.L., K.S. Zarmbo, and Ye.P. Ohnflachto. Study of the Mistructive Corrosion of the Inner Surface of the Gas-Line Steel Pipes Portnor, 1.0. and G.A. 2050v. Successive Operations of Sea Ejectors Under Stationary Supercritical Conditions Wessoyusnyy nauchno-issledovatel'sky institut prirodnykh gakov PRASE I BOOK EXPLOITATION 11(2)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001032000024-6

The system for determining ...

S/120/62/000/004/024/047 E039/E420

electronics is described and its characteristics are such that the coefficient converting displacement of the beam in vertical and radial directions into volts is S=1 V/cm. In the frequency range 0 to 5 Kc/s, the nonuniformity in this coefficient is not more than 3 db. Accuracy of measurement of beam position is \pm 5%, \pm 1.5 mm, relative to the half-width or half-height of the vacuum chamber for beam intensities of 2 x 10^8 to 2 x 10^{10} particles. There are 30 pairs of electrodes situated in the 15 straight sections. A typical oscillogram showed beam displacements up to 1 cm. Transverse oscillations of the beam are also measured. There are 6 figures.

ASSOCIATIONS: Institut teoreticheskoy i eksperimental'noy fiziki GKAE (Institute of Theoretical and Experimental Physics GKAE) Radiotekhnicheskiy institut GKAE (Radio-Technical Institute GKAE)

SUBMITTED: March 16, 1962

Card 2/2

1079

S/120/62/000/004/024/047 E039/E420

AUTHORS:

Kuz'min, A.A., Kurochkin, S.S., Kiselev, Yu.S., Mamayev, V.A., Pligin, Yu.S., Chernov, P.S.

TITLE:

The system for determining the position of the proton

PERIODICAL: Pribory i tekhnika eksperimenta, no.4, 1962, 126-131 An electrode system is described for determining the position of the proton beam in the acceleration chamber. It consists essentially of two pairs of insulated metallic plates fitted into the straight sections of the vacuum vessel, each of which is part of an elliptical cylinder with a cross-section equal to the cross-section of the main part of the vacuum chamber. By examining the signal induced by the beam in opposite pairs of electrodes the radial and vertical displacement of the beam can The magnitude of the induced signal depends on the displacement of the beam relative to the axis of symmetry of the electrodes, the beam intensity and the capacity of the electrodes. Calculations on the characteristics of the electrode system are made and verified experimentally. The associated Card 1/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001032000024-6

L 28 51-66 ACC NR AP6018094

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micrographic, and thermal analyses and by microhardness measurements. All the alloys had a chalcopyrite structure with lattice constant a decreasing linearly from 6.092 to 5.94%, with CdGeAs2 content increasing from 0 to 100 mol %, i.e., the composition dependence of a obeyed the Vegard law. The plot of microhardness versus composition displayed a maximum for the alloy of 25 at% CdSnAs2 and 75 at% CdGeAs2, but neither thermal nor x-ray analysis confirmed the existence of any inclusions. The phase diagram of the system is characteristic of a continuous series of homogeneous solid solutions. Orig. art. has: 3 figures and 1 table. [JK]

SUB CODE: 20/ SUBM DATE: 03Dec65/ ORIG REF: 003/ OTH REF: 002/ ATD PRESS

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Card 2/2 🕰

PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001032000024-6

E 28/5/1.66 Bit(m)/BSP(t)/ETT LIP(e) JU ACC VR; AP5018094 (N) SOURCE CODE: UR/0202/66/000/003/0029/0032

AUTHOR: Goryunova, N. A.; Mamayev, S. M.; Prochukhan, V. D.; Serginov, M.

ORG: Physicotechnical Institute, AN Turkmen SSR (Fiziko-tekhnicheskiy institut AN

TITE: Solid solutions of the CdSnAs2-CdGeAs2 system

SOURCE: An Turkmassr. Izvestiya. Seriya fiziko-tekhnicheskikh khimicheskikh i geologicheskikh mauk, no. 3, 1966, 29-32

TOPIC TAGS: semiconductor alloy, semiconductor research, solid solution, quaternary alloy, tin containing alloy, cadmium containing alloy, germanium containing alloy,

ABSTRACT: A series of alloys of the CdSnAs₂-CdGeAs₂ system have been synthesized and their crystal structure and certain physicochemical properties have been determined to detect the presumed formation of semiconductor solid solutions. Earlier, the Soviet authors prepared CdSnAs₂ and CdGeAs₂ single crystals with chalcopyrite structure, but solid solutions between these two compounds were unknown. All alloys were synthesized from high-purity elements in evacuated quartz ampuls by heating first at 600C, then at 1100C for a period of time. Homogeneous solid solutions were obtained over the entire composition range, as shown by the x-ray,

Card 1/2

Investigation of the thermo-emf and ... S/181/63/005/001/024/064

temperature range. The effective carrier mass was always small and almost independent of composition; its most probable value was ~ 0.045 m. There are 4 figures and 1 table,

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad (Physicotechnical Institute imeni A. F. Ioffe

AS USSR, Leningrad)

SUBMITTED:

July 23, 1962

Card 3/3

s/181/63/005/001/024/064 B102/B186

Investigation of the thermo-emf and ... range $100\text{-}600^{\circ}\text{K}$. For CdSnAs and InAs the temperature dependences of the effects were similar: At low temperatures Q $^{\parallel}$ and Q $^{\perp}$ were negative, changed sign between $\sim 300-400^{\circ}$ K and reached maxima at $\sim 600^{\circ}$ K. u decreased slowly with increasing temperature and dropped to $6000~\text{cm}^2/\text{v.sec.}$ R remained almost constant, α was always negative, $|\alpha|$ increased with temperature. The negative sign of Q at low temperature is indicative of carrier scattering from impurity ions; r from the love law is 2. The positive sign at higher temperatures is attributed to carrier scattering from acoustic phonons (r = 0.0 - 0.3). Here 1 is the mean free path and v the velocity of the carriers (electrons). Corresponding measurements of 2CdSnAs₂·(2InAs) and CdSnAs₂·(2InAs), having electron concentrations of $1.7 \cdot 10^{18}$ cm⁻³ and $4 \cdot 10^{18}$ cm⁻³ at room temperature, were made in the range

100-700 0 K. For both alloys Q $^{\parallel}$ and Q $^{\perp}$ were positive in the whole range with maxima at high temperatures. u and R of the first alloy remained almost constant, u of the second one had a distinct maximum at $T \ge 600^{\circ} K$ (~2000 cm²/v·sec) where R dropped. For both r = 0.3 - 0.9 in the whole

card 2/3

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S/181/63/005/001/024/064 B102/B186

AUTHORS:

Nastedov, D. N., Mamayev, S., and Yemel'yanenko, O. V.

TITLE:

Investigation of the thermo-emf and the thermomagnetic

effects in alloys of the system CdSnAs,-2InAs

PERIODICAL: Fizika tverdogo tela, v. 5, no. 1, 1963, 147-150

TEXT: The authors continue previous investigations (FTT, 2, 176, 1960; 3, 3405, 1961; DAN SSSR, 142, 623, 1962) of the system CdSnAs₂-2InAs whose

initial components are characterized by a particularly high carrier mobility (>15,000-20,000 cm²/v·sec). In the range 0-50% InAs the alloys have chalcopyrite structure and above 50% InAs sphalerite structure;

below 75% InAs they are n-type, above this they are p-type. The thermo-emf and the thermomagnetic Nernst-Ettingshausen effects were measured by a method described in PTE, No. 1, 98, 1960, applying weak magnetic fields (uH/c%1). In CdSnAs2, InAs, the Nernst-Ettingshausen effects (Q1, Q1),

thermo-emf (α) , mobility (u) and Hall effect (R) were measured in the

Card 1/3

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001032000024-6

Effect of disturbance of short-range order on the electrical properties of solid solutions with tetrahedral structure of distribution of atoms.

D. I. Tret'yakov.

Some electrical properties of solid solutions in the system AgInTe2-2InSb. S. M. Mamayev, V. D. Prochukhan. (Presented by D. I. Tret'yakov--15 minutes).

(Paper not presented).]

Investigation of thermally stimulated current in vitreous Tl₂Se·As₂Te₃. A. M. Andriyash, B. T. Kolomiyets.

Measurement of the mobility of current carriers in vitreous chalcogenide semiconductors. I. B. Ivkin, B. T. Kolomiyets, E. A. Lebedev.

Oxychalcogenide Glasses. B. T. Kolomiyets, V. P. Shilo. (Presented by B. T. Kolomiyets--20 minutes).

Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

Some properties of the semiconductor...

3/020/62/142/003/020/027 B101/B110

for a discussion. There are 3 figures, 2 tables, and 6 references: 2 Soviet and 4 non-Soviet. The three references to English-language publications read as follows: C. H. L. Goodman, Nature, 179, 828 (1957); A. J. Strauss, A. J. Rosenberg, J. Phys. Chem., Sol., <u>17</u>, 289 (1961); H. Pfister, Acta Crystallogr., <u>11</u>, 221 (1958).

ASSOCIATION:

Fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii nauk

SSSR (Physicotechnical Institute imeni A. F. Ioffe of the

Academy of Sciences USSR)

PRESENTED:

September 2, 1961, by A. N. Frumkin, Academician

SUBMITTED:

September 30, 1961

Card 3/3

structure of single crystals was confirmed by Laue diffraction patterns. The melting point was 615°C. The Hall effect R (at 6700 oersteds) and the melting point was 615°C. The Hall effect R (at 6700 oersteds) and the electrical conductivity σ were measured between 77 and 840°K. The following was found: (1) σ is independent of temperature in the range of 77 - 280°K. With increasing temperature, σ passes a minimum and then rises, following an exponential function. The minimum for an inhomogeneous polycrystal (A) was at 550°K, for a monolithic polycrystal (B) at 370°K, and for a single crystal (C) at 365°K. (2) At room temperature, σ was $2.5 \cdot 10^2$ ohm $-1 \cdot \text{cm}^{-1}$ for A, $3.4 \cdot 10^2$ for B, and $4.1 - 3.1 \cdot 10^2$ for C. (3) The mobility n of current carriers (n = R σ) was (in cm²/v·sec): 1000 for A, 5800 for B, and 18,000 - 22,000 for C. (4) The sign of Hall coefficient and thermo-emf showed electronic conductivity for all specimens. (5) Accordingly, the compound CdSnAs₂ is a semiconductor with higher n values than in any known ternary compound; the n values are even a little higher than for InAs. The n value for CdSnAs₂ is reduced by impurities; it can be elevated by improved purification. CdSnAs₂ offers good prospects for practical use as semiconductor. D. M. Masledov is thanked Card 2/3

<u> APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001032000024-6</u>

24,7700 (1043,1137,1138)

34753 \$/020/62/142/003/020/027 B101/B110

AUTHORS:

Goryunova, N. A., Mamayev, S., and Prochukhan, V. D.

TITLE:

Some properties of the semiconductor CdSnAs2, an electronic

analog of indium arsenide

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 3, 1962, 623-626

TEXT: On the basis of data for the width of the forbidden band and the microhardness it was concluded that the chemical bond was more covalent in CdSnAs2 than in InAs (InAs: $\Delta E = 0.45$ ev, H = 330 kg/mm²; CdSnAs2: $\Delta E = 0.26$ ev, H = 395 kg/mm²). Hence follows a higher mobility of current carriers in CdSnAs2 as compared with InAs. An improved method of synthesizing CdSnAs2 was used to prove these assumptions. [Abstracter's note: Method not stated.] The authors obtained monolithic, polycrystalline specimens (grain size: a few millimeters) as well as single crystals (a few centimeters long) of a cross section of ~ 0.25 cm². Their homogeneity was confirmed by the constant microhardness and electrical conductivity, as well as by the Debye-Scherrer patterns, the homogeneous Card 1/3

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001032000024-6

Investigation of magnetoelectric ...

S/728/61/007/000/001/002

course of the "odd" effects in different types of semiconductors. It was found that different impurities give rise to different types of anisotropy. Magnetos triction of single crystals of germanium in fields up to 17,340 Oersted was found to be independent of the directions of the crystal axes and of the measurements, to have a negative sign and to be of the volume type, and to be independent of the type of conductivity. The thermomagnetic Thomson-Baldmet'yevefect (sometimes called the longitudinal Nernst-Ettinghausen effect) was likewise investigated, using the same specimen and a 17,000 (lereted field, at coom temperature, and the germanium crystal was found to be bianisotropic with respect to the longitudinal and transverse thermomagnetic effects, with anisotropic thermal emf and electric resistivity along the principal crystal axes. English papers cited are by Pearson and Suhl (Phys. Rev. vol. 83, 768, 1951). Seitz (Phys. Rev. vol. 79, 372, 1950), Morin and Maita (Phys. Rev. vol. 14, 125, 1954), and Hung and Glissman (Phys. Rev. vol. 96, 1226, 1954). There are 11 figures and 4 tables.

Card 3/3

<u> APPROVED FOR RELEASE: 06/23/11:__CIA-RDP86-00513R001032000024-6</u>

Investigation of magnetoelectric...

· \$/728/61/007/000/001/002

the magnetic field vectors relative to the crystallographic axes of the specimen. Longitudinal (current parallel to field) and transverse (current perpendicular to field) galvanomagnetic effects were investigated for a spherical specimen, relative to the [001], [110], and [111] axes in one diagonal plane (110) of the crystal. It is theoretically predicted that the longitudinal affect should be respectively 2.5 and 3 times larger along [110] and [111] that along [001]. The transverse effects are equal for [001] and [110] but not of the same value as for [111], according to theory." The experimental : test procedure and the method of crystal production are described. The test results confirm the theory in first approximation only; the presence of bianimotr-py in n-type germinium, and the fact that the absolute values of the galvanomagnetic effect are different along the principal crystallographic axes of II- and p-type germanium crystals. A brief historical summary is presented of studies of the Nernst and Hall effects in semiconductors. Athough theory predicts that these effects should be the same along all axes not only for metals but also for semiconductors, no experiments were made heretofore on the latter. This was now confirmed with the same spherical netype single crystal of germanium as used for the Thomson-Goldhammer effect. A special DC potentioneter developed for this purpose is described. Single crystals of germanium with different types of conductivity were also grown to check on the Card 2/3

<u> APPROVED FOR RELFASE: 06/23/11: CIA-RDP86-00513R001032000024-6</u>

S/728/61/007/000/001/002

ALTIMORS: Annayev, R. G., Allanazarov, A., Mamayev, S., Mikhaylov, A. R.,
Dashevskiy, M. Ya., Kafiyev, E. I., Myndyyev, V.

TITLE: Investigation of magnetoelectric properties of n- and p-type germanium single crystals along the principal crystallographic axes.

SOURCE: Akademiya nauk Turkmenskoy SSR. Fiziko-tekhnicheskiy institut. Trudy, v. 7. Ashkhabad, 1961. 3 - 34.

EXT: Experiments were performed to detect the presence of simple anisotropy in simple-crystal germanium with respect to the Hall and Nernst effects, the presence of biantsctropy with respect to the Thomson-Bakhmet yev thermomagnetic effect, the Thomson-Goldhamman galvanomagnetic effect, and magnetostriction. Along with the foregoing, a check was made on the presence of anisotropy with respect to the thermo-amf and electric conductivity in a semiconducting germanium crystal as a cubic system, along the principal crystallographic axes, although such anisotropy has not been hitherto observed in metallic cubic-crystal systems. No previous research on this subject is known. At weak fields the galvanomagnetic effect is proportional to the square of the magnetic field intensity, and its magnitude depends on the orientations of the current and of Card 1/3

29386

Peculiarity of electrical properties ...

8/202/61/000/005/002/004 A006/A101

the effective electron mass. Maxima on R(T) curves in n and p type specimens are caused by the complex structure of energy zones - the excitation of "fast" electrons in n type specimens and "fast" holes in p-type specimens at high temperatures. The absence of changes in the sign of R in p type specimens is connected with the fact that the mobility of fast holes is greater than that of electrons. The authors suggest a schematic diagram of energy levels of solid solutions electrons with excess of InAs. (Fig. 7) The system shows a narrower forbidden band A E with increasing CdSnAs2 concentration in the solid solutions, since with an increase of this concentration the bottom of the conductivity zone is lowered, but the top of the valence zone does not change. This decrease of Δ E follows also from experimental data shown in Fig. 6. The authors thank N. A. Goryunov, D. N. Nasledov and A. I. Gubanov for their participation in discussing the present article and for their valuable observations. There are 1 table, 7 figures and 12 references: 5 Soviet-bloc and 7 non-Soviet-bloc. The reference to the most recent English-language publication reads as follows: ASSOCIATION: Fiziko-tekhnicheskiy institut im. A.F. Ioffe Akademii nauk SSSR

(Institute of Physical Engineering imeni A. F. Ioffe, USSR Academy

SUEMITTED:

April 4, 1961

Card 3/5

Peculiarity of electrical properties ...

29386 S/202/61/000/005/002/004 A006/A101

synthesized from these components, had a concentration of charge carriers at room temperature of 3.1 x 10^{18} cm⁻³ and 1.6 x 10^{17} cm⁻³ respectively. The electric conductivity and the Hall effect were measured within a wide temperature range for a series of compounds. All the measurements were made by the conventional compensation method on d-c. A 0.05 mm diameter platinum wire was used as an electrode. Measurements below room temperature were made in a vacuum and above it in argon atmosphere. The Hall effect was measured in a constant magnetic field of H = 6,700 oersted. Curves were plotted of the electric conductivity δ and the Hall effect R versus the inverse value of absolute temperature for n and p type specimens. When analyzing the results obtained the following problems were studied: the origin of charge carriers; the causes of n and p type conductivity in solid solutions; the causes of an unchanged sign of the Hall constant in the 1: 4, 1:5 and 1:9 composition of the p-type contrary to compositions 1:99 and 1:399; causes of the R(T) function peak in the high-temperature ranges for n and p type specimens. As a result of the investigation, the following conclusions can be drawn: The charge carriers in the specimens are mainly generated by dissociated atoms. Changes in the type of conductivity of the specimens from n to p (beginning approximately from composition 1:3 towards higher InAs concentration) are caused by changes in

Card 2/5/3

X

24,7700 (1144, 1385, 1043)

29386 s/202/61/000/005/002/004 A006/A101

AUIHORS:

Mamayev, S., Nran'yan, A. A.

TITLE:

Peculiarity of electrical properties of semiconducting solid solutions (mCdSnAs₂ - n(2InAs)

PERIODICAL: Akademiya nauk Turkmenskoy SSR. Izvestiya, Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk, no. 5, 1961, 21-31

TEXT: For the purpose of obtaining substances with continuous variation of properties, the authors studied electric properties of some solid solutions obtained on indium arsenide base. This is one of the first studies in this field. The CdSnAs2 compound was chosen as a second component. The solid solutions of the system mCdSnAs2-n(2InAs) have a chalcopyrite structure within the concentration range from n=0 to n=m and a specific zinc blende structure at $n \geq m$. The specimens under investigation were synthesized of spectrally pure Cd, Sn and In components. Arsenic used for the syntehsis was produced by a method described in reference 3 (Goryunova, N. A. and others: Method of obtaining high purity arsenic, Zhurnal prikladnoy khimii, no. 6, v. XXIII, 1960) and was then twice sublimated in a vacuum. The compounds CdSnAs2 and InAs,

Card 1/82

X

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001032000024-6

Electrical properties of ...

S/181/61/003/011/026/056 B125/B104

forbidden-band width of CdSnAs₂ is 0.26 ev. N. A. Goryunov is thanked for interest and advice. There are 8 figures and 9 references: 5 Soviet and 4 non-Soviet. The three references to English-language publications read as follows: A. I. Strauss, A. I. Rosenberg. Bull. Americ. Phys. Soc., 5, 83, 1960; A. I. Strauss, A. I. Rosenberg. I. Phys. Chem. Sol., 17, 278, 1961; H. Ehrenreich. Phys. Rev., 120, 6, 1951, 1960.

ASSOCIATION:

Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR Leningrad (Physicotechnical Institute imeni A. F. Ioffe AS USSR, Leningrad)

SUBMITTED:

June 13, 1961

Table. Electrical properties of the samples.

Legend: (1) number of sample; (2) type of conduction; (3) and (4) composition; (5) mobility; (6) conductivity.

Card 3/8/12

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001032000024-6

Electrical properties of ...

S/181/61/003/011/026/056 B125/B104

5n1, 1n0, and 2n3 slowly decreases with increasing temperature. At high temperatures, from $\sim 350^{\circ} K$ onward, σ increases exponentially for all the compositions examined here. The constancy of J and R over a wide range of temperatures is indicative of a degeneracy at low temperatures. At high temperatures, the Hall constant decreases exponentially with increasing temperature. At low temperatures, the product (R, J), which characterizes the carrier mobility, is virtually independent of temperature. It increases considerably with rising temperature above 250°K and decreases again above 600°K. The unvarying sign of R, which is characteristic of the test samples (except 1p99 and 1p399), is obviously due to the fact that, owing to the high impurity concentration in the samples, pure intrinsic conduction is not yet reached in the temperature range in question. The mobility ratio is almost equal to unity. At b = 1, R decreases exponentially (exponent $\Delta E/kT$) within the region of intrinsic conduction. If the order of magnitude of b is unknown, the error involved in the determination of ΔE from the R(T) curve may reach 100%. In this case, the value of ΔE obtained from $\sigma(T)$ is more exact. Fig. 8 contains values of ΔE as a function of the composition of the test samples. The values of $\overline{\Delta}E$ obtained from R(T) and $\sigma(\underline{\pi})$ differ only slightly. The

S/181/61/003/011/026/056 B125/B104

AUTHORS:

Mamayev, S., Nasledov, D. N., and Galabanov, V. V.

TITLE:

Electrical properties of the semiconductive solid solutions

xCdSnAs₂ - y(2InAs)

PERIODICAL: Fizika tverdogo tela, v. 3, no. 11, 1961, 3405-3413

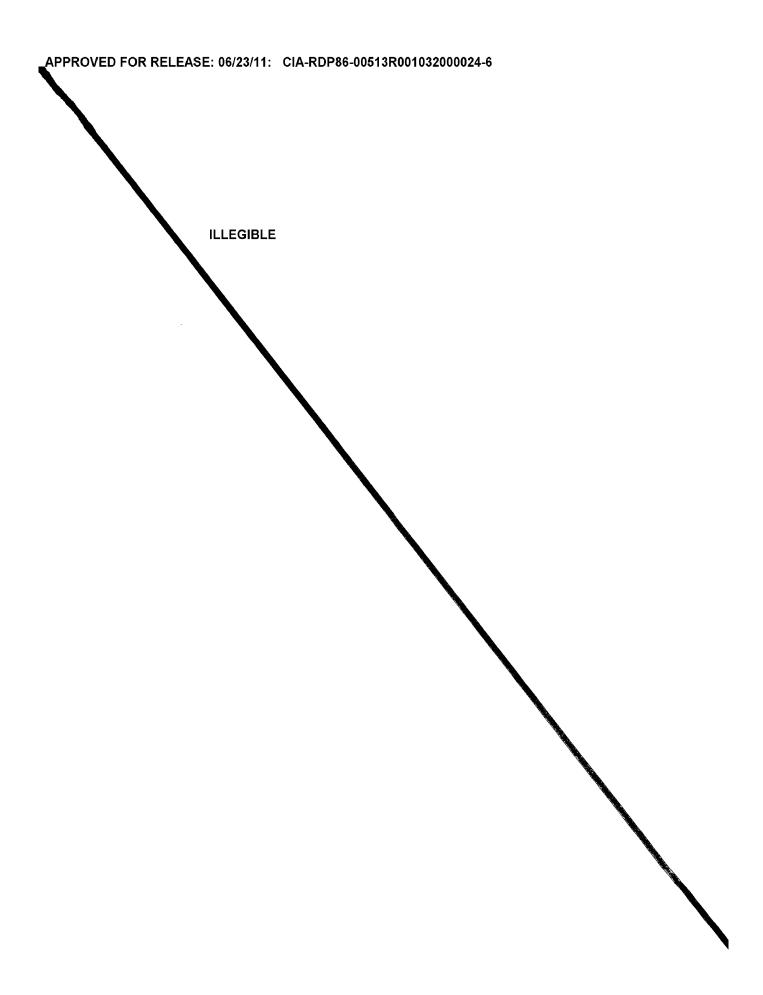
TEXT: Electrical conductivity and Hall constant R were measured in the temperature interval of $77-950^{\circ} K$ on 14 different compositions of the system xCdSnAs₂ - y(2InAs). The measurements were made in a constant

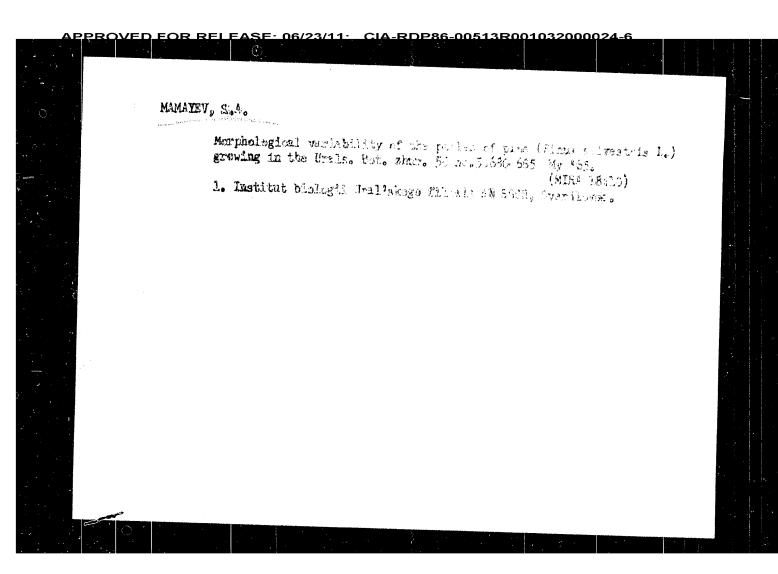
magnetic field of 6700 oe by a compensation method - in vacuo below room temperature, and above room temperature, in an argon atmosphere. Spectroscopically pure Cd, Sn, and In samples were used for the purpose. The compositions of the test samples (values x and y) are listed in the enclosed table. Figs. 1 and 2 show the electrical conductivity as a function of the reciprocal absolute temperature. In the interval of 77-280°K, the electrical conductivity of the samples is virtually independent of temperature; only the electrical conductivity of samples

Card 1/8/3

MAMAYEV, Sapar; GELDINAZAROV, Kh., red.; ALLABERDIYEV, F., tekhred. [Semiconductors and their uses] Larym gechirizhiler ve olaryn ulanylyshy. Ashgabad, 1958. 31 p. [In Turkmen] (MIRA 12:6)

(Semiconductors)





MAMAYEV, S.A.; PETUKHOVA, I.P. Hardiness of introduced woody plants in the Urals. Trudy Inst. biol. UFAN SSSR no. 43:297-301 '65 (MIRA 19:1 (MIRA 19:1) 1. Botanicheskiy sad Instituta biologii Ural'skogo filiala AN SSSR. MAMAYEV, S.A. Seasonal and age-conditioned dynamics of the chlorophyll a and b content of pine needles. Trudy Inst. biol. UFAN SSSR no. 43:37-41 165 (MIRA 19:1) 1. Institut biologii Ural'skogo filiala AN SSSR.

CIA-RDP86-00513R001032000024-6 MAMAYEV, S.A. Coarse-barked pine in the forests of Perm Province. Trudy Inst. biol. AN UFAN SSSR 42:97-106 65. Biological characteristics of the pollen of pine from various areas of the Urals. Ibid.: 121-134 (MIRA 19:2)

MAMAYEV, Stanislav Aleksandrovich; GOSCHAROVSKIY, I.L., 171. 194. [Key for the identification of trues and through the like of local and introduced appearant in resultant as new town a kesternikov Urala; mestnykh i jetrolaksirowanym vonev. Sverslovsk, 116 p. (Akademila nauk 3503. Ucaliskli fills), institut brotogii Trudy, no.41) (m. na 18,7) MAMAYEV, S.A. From the history of the botanical garden in Svereit and Iruda Inst. biol. UFAN SSSR no.3123-11 263 (MIRA 2717) Valuable species of trees and sambo in the old plantings of the botanical garden. Thid. :13-29

MAMAYEV, S. A.; PETUKHOVA, I.P. Effect of gibberellin on the growth of some trees and shrubs. Zap. Sverd. otd. VBO no.2:95-99 162. (MIRA 16:8) 10

MAMAYEV, S.A., kand.sel'skokhoz.nauk Botanical Garden in Sverdlovsk and the protection of nature.
Okhr.prir.na Urale no.3:157-160 *62. (MIRA 16:6)
(Sverdlovsk-Botanical gardens)

CIA-RDP86-00513R001032000024-6 MAMAYEV, S.A. Research tasks of the Botanical Garden of the Ural Branch of the Academy of Sciences of the U.S.S.R. Trudy Inst. biol. UFAN SSSR no.23:3-22 '61. (MIRA 15:2) (Ural Mountain region-Botanical research)

<u> APPROVED FOR RELFASE: 06/23/11: _CIA-RDP86-00513R001032000024-6</u> NESTEROV, V.G., prof., doktor sel'skokhozyaystvennykh nauk; MAMAYEV, S.A., kand. sel'skokhozyaystvennykh nauk Studying the inheritance of the elements of development in trees [with summary in English]. Izv. TSKhA no.6: 6-16 158. (MIRA 12:1) (Trees) (Heredity)

MAMAYEV, S.A., nauchnyy sotrudnik. Establishing shelterbelts on banks of the Ruybyshev Reservoir [with summary in English]. Izv. TSKh& no.2:175-184 '58. (MIRA 11:6) (Kuybyshev Reservoir region--Windbreaks, shelterbelts, etc.) APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001032000024-6

USSR / Forestry. Biology and Typology.

K-2

Abs Jour: Ref Zhur-Biol., No 16, 1958, 72774.

Author : Nesterov, V. G.; Mamayev, S. A.

Inst: Moscow Agricultural Academy imeni K. A. Timiryazev. Title: Intensity of Pine Tree Growth as an Indicator of

the Process of Development.

Orig Pub: Dokl. Mosk. s.-kh. akad. im. K. A. Timiryazeva, 1957, vyp. 31, 307-312.

Abstract: In the Kurov Leskhoz of Moscow Oblast, 3 types of trees were found, characterized by different dynamics of growth, by observations of model trees in a pine forest. Trees of type "a" were distinguished by the great energy of the growth of the upper shoots in later years, in comparison with type "b." With age the difference in height growth becomes more distinct. Type "a" possesses strong height

Card 1/2

NESTEROY, V.G., prof., doktor nauk; MAMATEV, S.A., kand, nauk; GOLOVINA, Ye.T., aspirant.

Districts of gully erosion along the left bank of the Kamm above the Kuybyshev Reservoir and differentiation between protective measures, Dokl. TNKhA no.291320-324 57. (MIRA 11:8)

(Kama Valley—Brosion)

<u> APPROVED FOR RELEASE: 06/23/11: _CIA-RDP86-00513R001032000024-6</u> MAMAYEV, S. How to collect and plant seeds from trees and bushes. IUn.nat. no.12:31-32 D '57. (MIRA 10:12) (Seeds)

CIA-RDP86-00513R001032000024-6

MAMAYEV, S.A.

MAMAYEV, S. A. Name

Studies on the growth and development of Dissertation pine, made for purposes of forestry seed

production

Cand Agr Sci Degree

Moscow Order of Lenin Agricultural Academy imeni K. A. Timiryazev Defended At

1956, Moscow Publication Date, Place

> Knizhnaya Letopis' No 6, 1957 Source

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001032000024-6

L 47401-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AR6025763 SOURCE CODE: UR/0058/66/c00/004/A076/A076

AUTHOR: Mamayev, S.; Nazarov, A.

TITLE: p-type CdSnAs2 and its electric properties

SOURCE: Ref. zh. Fizika, Abs. 4A639

REF SOURCE: Sb. Simpozium. Protsessy sinteza i rosta kristallov i plenok poluprovodnik. materialov, 1965. Tezisy dokl. Novosibirsk, 1965, 17-19

TOPIC TAGS: cadmium compound, stoichiometry, single crystal growing, temperature dependence, semiconductor conductivity, electron mobility, hole mobility, Hall mobility, carrier density

ABSTRACT: Polycrystalline homogeneous samples of n-type CdSnAs₂ were synthesized by the method of melting together stoichiometric batches in evacuated and sealed quartz ampoules, using vibration mixing during the synthesis and cooling. The p-type CdSnAs₂ single crystals were obtained by zone recrystallization of n-type polycrystalline samples. The width of the molten zone was 5 - 10 mm, the number of passages through the zone 20 - 25, the speed of motion of the molten zone 37.5 and 6 mm/hr. Single crystals 6 - 7 cm long with transverse cross section 0.25 cm² were obtained. Measurements were made of the temperature dependence of the electric conductivity and of the Hall effect in a temperature interval 90 - 800K. The Hall mobility at 200K is $\mu_p = 316$ cm²/v-sec, and the carrier density is 2 x 10¹⁷ cm⁻³. The ratio of electron to hole mobility is b = 36. [Translation of abstract]

SUB CODE: 20
Card 1/1

ENT())/ENT(m)/ENP(&)/ET SOURCE CODE: UR/0202/65/000/005/0113/0116 <u>| 27777-</u>66 ACC NRI AP6008938

AUTHOR: Allanazarov, A.; Mamayev, S.

ORG: Physico-Technical Institute, AN Turkmen SSR (Fiziko-tekhnicheskiy institut

AN Turkmenskov SSI) TITLE: Magnetores stance in quaternary indium-arsenide-base alloys

SOURCE: AN TurkmSSR. Izvestiya. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk, no. 5, 1965, 113-116

TOPIC TAGS: magnetoresistance, quaternary alloy, semiconductor alloy

ABSTRACT: The results are reported of measurements of resistance, in a transverse magnetic field, of CdSnAs — 2InAs with these ratios between the components, respectively: 1:399, 2:98, 4:96, 5:95, 6:94, 8:92. Specimens of 12 x 2 x 1.5-mm were tested. The magnetoresistance was measured as a function of the magnetic field strength at constant temperatures and also as a function of temperature keeping the magnetic field constant (H = 5620 ce). It was found that: (1) In weak fields, the magnetoresistance varies as the square of the field strength; (2) The plot of magnetoresistance vs. temperature has a maximum which corresponds to the transition from extrinsic conductance to intrinsic; (3) The carrier-dispersion factor depends on the hole concentration. Orig. art. has: 3 figures and 1 table.

SUB CODE: 20, 09 / SUBM DATE: 25Feb65 / ORIG REF: 005

L 14133-66

ACC NR: AP6000875

the thermoelectric power α on two samples measuring 11.4 x 3.2 x 2.4 and 6.4 x 1.45 x 1.1 mm with hole densities 2.6 and 3 x 10^{17} cm $^{-3}$ spectively at 100K. With increasing temperature the Hall constant reverses sign near room temperature, and σ varies like T-0.575 with increasing temperature from 100K to room temperature, after which it increases sharply in the region of the transition to intrinsic conductivity. The differential thermal emf is positive at low temperaductivity. The differential thermal emr is positive at low temperatures at 180 $\mu\nu/\text{deg.}$ At 380K it reverses sign and increases in absolute magnitude to 240 $\mu\nu/\text{deg.}$ The width of the forbidden band at 0°K was found to be 0.254 ev. The differences between the n-type and p-type samples is attributed to the difference in the carrier mobilities. The effective mass of the carriers is found to be 0.4 m₀. It is concluded that CdSnAs₂, like its iscelectronic analogs InAs and

InSd, is characterized by a large electron/hole mobility ratio and a large hole/electron effective mass ratio. Orig. art. has: 2 figures.

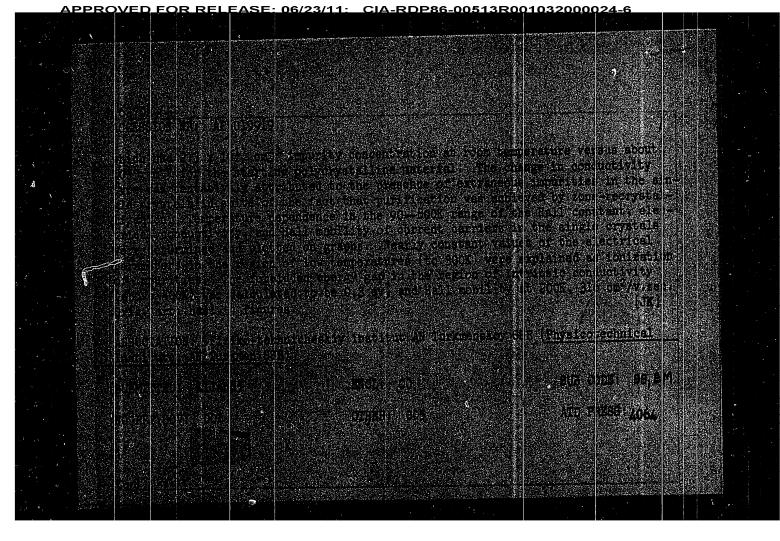
SUBM DATE: 28Jun65/ ORIG REF: 002/ OTH REF: 005

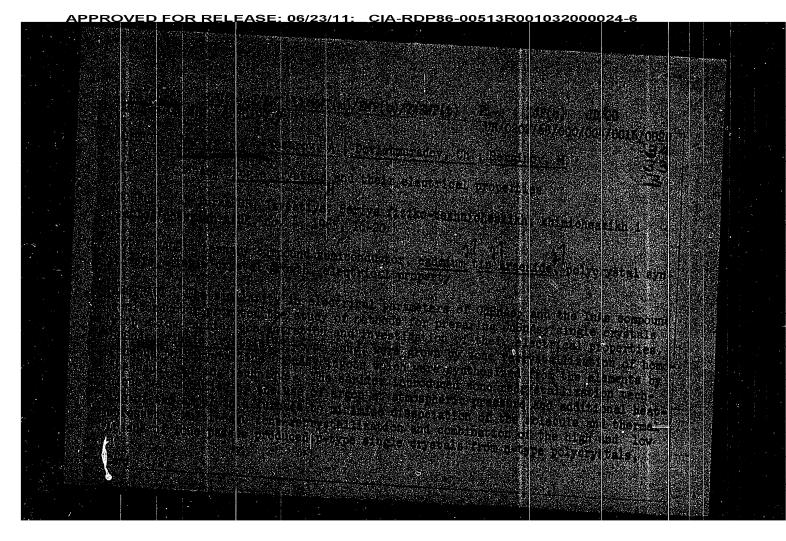
L 14133-66 EWT(1)/EWT(m)/T/EWP(t)/EWP(b) ACC NR: AP6000875 IJP(c) SOURCE CODE: JD/G0 UR/0181/65/007/012/3655/3657 AUTHORS: Galayanov, v. Mamayev, S.; Nazarov, Goryunova, N. A.; Korshak, N. M.; ORG: Physicotechnical Institute im. (Piziko-tekhnicheskiy institut AV SSSR) TITLE: Some properties of p-CdSnAs SOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3655-3657 TOPIC TAGS: dadmium compound, arsenic compound, tin compound, single crystal, electric conductivity, Hall coefficient, thermoelectric power, temperature dependence AESTRACT: Although the properties of n-type CdSnAs have been described in the literature, there is no published information on the p-type compound. The authors have produced by single crystals of p-type CdShAs2 zone melting and measured the temperature dependence of the specific electric conductivity o, the Hall coefficient R, and Card

ALLANAZAROV, A.; MAMAYEV, S.

Magnetic resistance in quaternary alloys on the basis of indium arsenide. Izv. AN Turk.SSR.Ser.fiz.-tekh., khim. i gool.nauk no.5:113-116 '65. (MIRA 18:11)

1. Fiziko-tekhnicheskiy institut AN Turkmenskoy SSR. Submitted February 25, 1965.

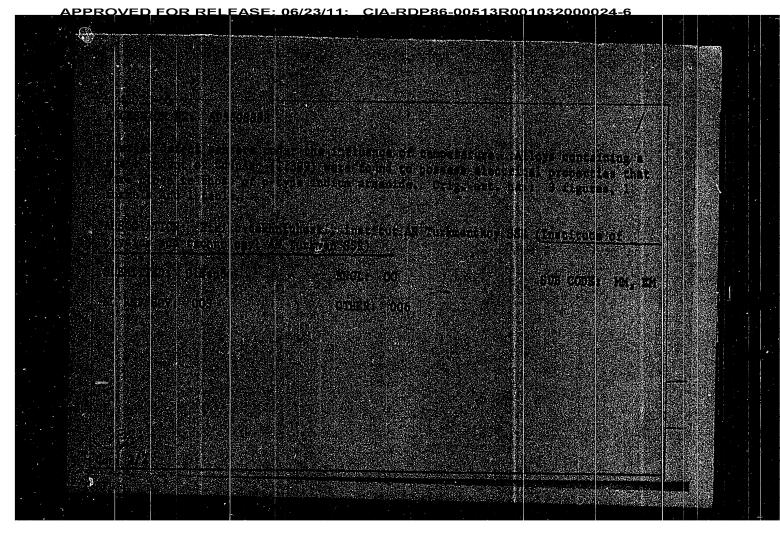




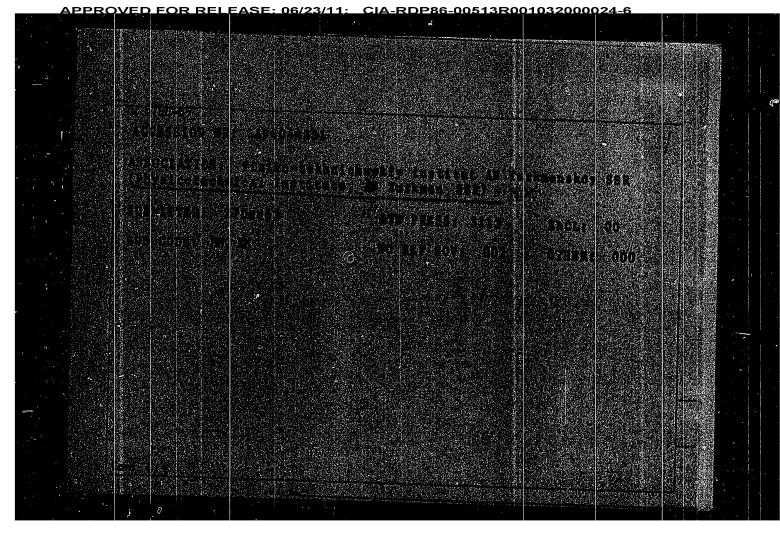
ALLANAZAROV, A.; MAMAYEV, S. energial distillusions in a constitution of the constitution of th Electric properties of quaternary alloys in the system CdSnAs2-2InAs. Izv. AN Turk. SSR. Ser. fiz.-tekh., khim. i geol. nauk no.1:17-22 '65. (MIRA 18 (MIRA 18:7) 1. Fiziko-tekhnicheskiy institut AN Turkmenskoy SSR.

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ACCESSION NR: AP4033416

increased with increasing temperature for all samples. Above 400K R decreased with increasing temperature for all samples. The dependence on temperature of the mobility u was found, using the relation $u=\frac{1}{A}R\cdot\sigma$, where A is a constant which was

set equal 1. The author thanks Professor N. A. Goryunova and V. D. Prochukhan, Candidate of chemical sciences, for valuable advice. Orig. art. has: 2 equations, 3 diagrams, and 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN Turkmenskoy SSR (Physicotechnical Institute AN Turkmen SSR)

SUBMITTED: 27Apr63

ENCL: 00

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NO REF SOV: QO2

OTHER: OOO

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001032000024-6

ACCESSION NR: AP4033416

S/0202/64/000/001/0017/0020

AUTHOR: Mamayev, S.

TITLE: Electrical properties of solid solutions in a four-component system

SOURCE: AN TurkmSSR. Izvestiya. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk, no. 1, 1964, 17-20

TOPIC TAGS: alloy, semiconducting material, indium compound, indium antimonide, electric property, electric conductivity, carrier density, carrier mobility, Hall constant, temperature dependence

ABSTRACT: Experiments were performed to determine some of the electrical properties of solid solutions in the four-component system AgInTe₂ - x(2InSb), where x took the values 1, 2, 3, 4, and 9. All the samples were n-type semiconductors. At room temperature with increasing x the concentration of carriers n increased in the range 2.5-7.10¹⁸/cm³, and the mobility of the carriers u increased in the range 70-1700 cm²/v-sec. In the interval of temperature 90-350K the electroconductivity 6 and the Hall constant R remained practically constant for all samples. For the samples x = 2,3,4,9 6 decreased slightly around 500K and above this temperature 6 Card 1/2

<u> APPROVED FOR RELFASE; 06/23/11: CIA-RDP86-00513R001032000024-6</u>

NASLEDOV, D. N.; MAMAYEV, S.; YEMEL'YANENKO, O. V.

Thermo-emf. and thermomagnetic effects in alloys of the system CdSnAu₂ - 2InAs. Fiz. tver. tela 5 no.1:147-150 Ja ¹63. (MIRA 16:1)

1. Fisiko-tekhnicheskiy institut imeni A. F. Ioffe AN SSSR, Leningrad.

(Thermoelectricity) (Thermomagnetism) (Systems(Chemistry))

MAMAYEV, P. Wage schedule on collective farms. Sots, trud 5 no.6:29-33 Je 160. (MIRA 13:11) (Rostov Province-Collective farms--Income distribution)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001032000024-6

MAMATRY P.V., kand, ekon, nauk,

Remnneration of labor based on production, Nauka i pered, op. v sel'khoz. 7 no.12:54-56 D '57.

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MAMAYEV, PETR VASIL'YEVICH

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Kak raspredelyayut dokhody v kolkhoze imeni lenina; opyt respredeleniya kokhodov v rasteniyevodstve s tsentnera urozhaya (How income is distributed in " kolkhoze names Lenin" Rostov-na-Donu, "Ostovskoye Knizhoye I zd-vo, 1954.
54 p. tables.

MAMAYEV, P. V. USSR (600) Wages 7. Calculating work days in connection with production obtained. Sad i og. No. 3, 1953. Monthly List of Russian Accessions, Library of Congress, April 1953. Unclassified. <u> APPROVED FOR RELFASE: 06/23/11:__CIA-RDP86-00513R001032000024-6</u>

MIMAYEV, P.

Mumayev, P. and Kaplun, S. - "On the evaluation and standardization of agricultural work in the operation of the kolkhozes", Sbornik rabot (Rost. nauch.-issled. in-t ekonomiki sel. khoz-va), Issue 1, 1949, p. 129-50.

SO: U-411, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 20, 1949).

<u> APPROVED FOR RELFASE; 06/23/11: _CIA-RDP86-00513R001032000024-6</u>

L 45290-66

ACC NR. AP6020979

shows that the central water mass (A) of the North Atlantic may be formed by mixing the water of the Gulf Stream proper with the underlying deep water (B). This formation is a result of the latitudinal (zonal) transformation of the Gulf Stream water. Some results of numerical calculations have been presented, which were derived by using formulas based on the theory of T and S curves. T and S curves are given for mixing the water masses A and B of various values of t (time) and z (depth) parameters. Orig. art. has: 3 figures and 7 formulas. [Based on author's abstract]

SUB CODE: 08/ SUBM DATE: 10Feb65/ ORIG REF: 003/ OTH REF: 003/

Card 2/2

APPROVED FOR RELEASE; 06/23/11: CIA-RDP86-00513R001032000024-6

L 45290-66 EWT(1) GW

ACC NR: AP6020979 (N) SOURCE CODE: UR/0213/66/006/003/0399/0407

AUTHOR: Mamayev, O. I.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudar-stvennyy universitet)

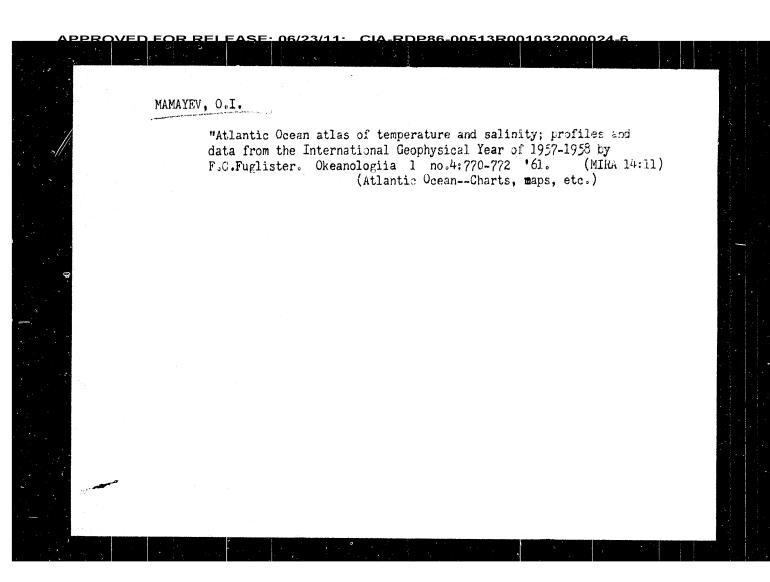
TITLE: Latitudinal transformation of ocean water masses in light of the theory of

SOURCE: Okeanologiya, v. 6, no. 3, 1966, 399-407

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ABSTRACT: The origin of central (according to Sverdrup) water masses of the oceans has been studied. The analytical theory of T and S curves has been applied to the case when two water masses are mixed in a sea limited in depth. Proceeding from the above theory and taking the North Atlantic as an example, the author

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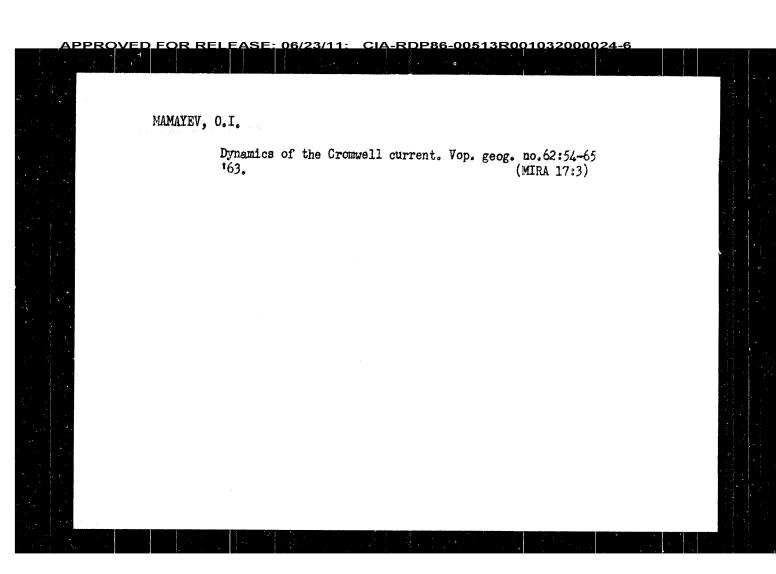
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